

1. What do you call the process of finding the magnitude of \vec{F} ?
2. Describe the relationship between \vec{F} , F_y , and F_x .
3. If F_x was negative, how would the diagram be different?
4. If you know the values of only \vec{F} and F_x , what equation could you use to find F_y ?
5. If you increase the angle at which \vec{F} acts to 40° , how will the components be affected?
6. What causes the force \vec{F}_g ? Explain the orientation of this force vector.
7. If the angle of incline was decreased to 15° , how would the components of \vec{F}_g be affected?
8. If you know the values of only \vec{F}_g and θ , what equation could you use to find F_{gy} ?
9. If you know the values of only \vec{F}_g and θ , what equation could you use to find F_{gx} ?
10. If the inclined plane is a frictionless surface, what other force besides those shown in the diagram acts on the box?